

**REMARKS**

Upon entry of the instant Amendment, claims 1-18 and 27 will be pending in the application. Claims 8-12, 16 and 17 have been withdrawn by the Examiner on the basis of an election of species requirement. By this amendment, claims 3, 5, 6, 7, 8, 15 and 16 will have been amended and claim 27 will have been added. Support for new claim 27 can be found in, e.g., Fig. 8. No new matter is added. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

***Restriction Requirement***

Applicants acknowledge the election of species requirement and the provisional election of species 1 directed to claims 1-7, 13-15 and 18 without traverse. Claims 15-26 have been withdrawn by the Examiner. However, Applicants request that the withdrawn claims be rejoined if and when generic independent claims 1 and 13 are found to be allowed and/or allowable.

***Claim Objections***

Claims 2, 13-15 and 18 were objected to because these claims were alleged to contain minor informalities. Applicants respectfully disagree with each of the Examiner's assertions.

The Examiner objects to claim 2 because the Examiner believes that it recites process limitations which should be written in a more orderly manner. Applicants

disagree. Claim 2 is not a process claim. While it is true that claim 2 recites language indicating how certain layers are placed over other layers, the Examiner has not shown how the use of such language renders the claims unclear or contrary to current USPTO rules. Indeed, the Examiner has failed to identify any USPTO rule which is violated by the noted language.

With regard to the Examiner's assertion that the term "about" is unclear, Applicants submit that this is not the case. The term about, as used in the context of claims 3 and 13, means around or in the area of. Such a definition is evident from a fair reading of the specification. The Examiner has not shown how the use of such language renders the claims unclear or contrary to current USPTO rules.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the objection to these claims.

### **35 U.S.C. § 103 Rejection**

Claims 1-7, 13-15 and 18 were rejected under 35 U.S.C. § 103(a) for being allegedly unpatentable over U.S. Patent No. 6,414,371 to FREEMAN et al. in view of U.S. Patent No. 4,870,475 to ENDO et al. and/or U.S. Patent No. 6,482,710 to ODA et al. This rejection is respectfully traversed.

The Examiner acknowledges that FREEMAN fails to disclose, among other things, the recited oxide layer. However, the Examiner explains that this feature is taught by each of ENDO and ODA and that it would have been obvious to combine the teachings of these documents. Applicants respectfully submit that a *prima facie* case of

obviousness has not been established as the applied references fail to teach each and every element of the claims.

Applicants acknowledge that FREEMAN discloses a collector layer 12, a base material 14, an emitter region, a via 24 and a metal contact 26 (see Fig. 2). However, it is clear from a fair review of the figures of FREEMAN that this document does not disclose or suggest an oxide layer formed over the collector region and having a conductive pathway in electrical contact with the collector region, much less, a collector metal contact deposited over the oxide layer and the conductive pathway, wherein the conductive pathway through the oxide layer provides electrical contact between the collector metal contact and the collector region and/or an oxide layer deposited about at least one side and on a surface of the collector region. To the contrary, the Examiner has acknowledged that layer 14 which is formed over collector 12 is not an oxide. Accordingly, it follows that FREEMAN cannot disclose an oxide layer formed over the collector region and having a conductive pathway in electrical contact with the collector region. It also follows that FREEMAN cannot disclose or suggest an oxide layer deposited about at least one side and on a surface of the collector region.

ENDO and ODA do not cure the deficiencies of FREEMAN. While it is apparent that ENDO discloses a device having oxide layers 202 and 209, a collector 206, an emitter 205, and a collector metal contact 213 that is apparently in electrical contact with the collector 206 (see Figs. 6a-6c), it is clear that the collector metal contact 213 is not arranged over either of the oxide layers 202 and 209 (see Fig. 6c). Instead, the collector metal contact 213 is arranged below both the collector 206 and the oxide

layers 202 and 209. Accordingly, it follows that ENDO cannot disclose or suggest an oxide layer formed over the collector region and having a conductive pathway in electrical contact with the collector region. It is also clear from Fig. 6c that ENDO clearly does not disclose or suggest an oxide layer deposited about at least one side and on a surface of the collector region.

Furthermore, while it is apparent that ODA discloses a device having an oxide 4, a collector 5, an emitter 20, and a collector electrode 24 in electrical contact with the collector 5 (see Fig. 1), it is clear from Fig. 1 that the oxide 4 is not arranged between a collector metal contact 24 and the collector 5. Accordingly, it follows that ODA cannot disclose or suggest an oxide layer formed over the collector region and having a conductive pathway in electrical contact with the collector region. It is also clear from Fig. 1 that ODA clearly does not disclose or suggest an oxide layer deposited about at least one side and on a surface of the collector region. Nor has the Examiner identified any language in ODA which discloses or suggest this feature.

Accordingly, Applicants submit that no proper combination of FREEMAN, ENDO and ODA discloses or suggests the combination of features recited in at least claims 1 and 13.

Moreover, in addition to failing to disclose the combination of features recited in the above-noted claims 1 and 13, Applicants submit no proper combination of these documents discloses or suggests the combination of features recited in dependent claims 2-7, 14, 15 and 18, which also respectfully contain all of the features of claims 1 and 13.

Accordingly, Applicants respectfully submit that the above-noted rejection under 35 U.S.C. § 103(a) should be withdrawn.

### CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Any fees required for consideration of the instant response are hereby authorized to be charged to our Deposit Account No. 09-0458.

Respectfully submitted,  
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